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Identifier: Kwang-Jin PARK, et al.

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) An automatic water pressure control valve balancing the temperature of mixed water of the present invention, comprising:

a main body including:

a hot water inlet and a cold water inlet, bent and ~~face~~facing each

other;

a piston spacer within the main body connected with the hot and the cold water inlets, wherein one end of the piston spacer has the same diameter with the other end of the piston spacer;

a separation hole in the center of the piston spacer;

a first spacer in one side of the piston spacer, storing a predetermined quantity of hot water;

a second spacer in the other side of the piston spacer, storing a predetermined quantity of cold water;

a ~~hook hole~~transition opening between the piston spacer and the first spacer, having slightly smaller diameter than the piston spacer;

a cap hole prolonged to the piston spacer via the second spacer to have slightly longer diameter than the piston spacer, comprising a female

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screw on the outer side of the second spacer and a ~~hook-jaw~~ transition step
in one side of the piston spacer;

a hot water outlet connected with the first spacer; and

a cold water outlet connected with the second spacer;

5 a piston, penetrating insertable through the female screw, the second spacer,
and the separation hole of the main body sequentially, including:

a sealing moveable only within and against the separation hole;

10 a hot water tube in one side of the sealing, connected with the first
spacer, including a hot water hole opened or closed selectively to the hot
water inlet; and

a coldwater tube in the other side of the sealing, connected with the
second spacer, including a cold water hole opened or closed selectively to
the cold water inlet;

15 wherein one end of the piston is contacted with the ~~hook~~
hole transition opening of the piston spacer having a boundary with the first
spacer;

the length of the piston is slightly less than the length of the piston
spacer; and

20 the outer ~~circumstance~~ circumference of the sealing includes a ring
groove placing a seal ring; and

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a cap penetrating the cap hole in one side of the main body to contact with the ~~hook jaw~~ transition step in one side of the piston spacer, including:

an inlet tube in the extremity of the cap, connected with the piston spacer;

5 a separation hole perpendicular to the inlet tube, connected with the second spacer;

a male screw in the outer ~~circumstance~~ circumference of the inlet tube adjacent to a cap head, corresponding to the female screw of the main body.

10 2. (Currently Amended) An automatic water pressure control valve balancing the temperature of mixed water of the present invention, comprising:

a main body including:

a hot water inlet and a cold water inlet, bent and ~~face~~ facing each other;

15 a piston spacer within the main body connected with the hot and the cold water inlets;

a first spacer in one side of the cylinder spacer to store a predetermined quantity of hot water;

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a second spacer, connected with a female screw penetrating to the outside of the main body, in the other side of the cylinder spacer to store a predetermined quantity of cold water;

a ~~hook hole~~ transition opening between the piston spacer and the first

5 spacer;

a hot water outlet connected with the first spacer;

a cold water outlet connected with the second spacer; and

a backflow cutoff valve in each of the hot water outlet and the cold water outlet to prevent back flows of hot or cold water;

10 a cylinder ~~penetrating~~ insertable through the female screw, the second spacer

sequentially, including:

a first inlet connected with the hot water inlet;

a second inlet connected with the cold water inlet;

15 at least more than one seal ring in the outer ~~circumstance~~ circumference of the cylinder to separate completely hot water from cold water in the piston spacer;

a ~~hook-jaw~~ transition step within one side of the cylinder, adjacent to the second spacer; and

20 a screw in one side of the outer ~~circumstance~~ circumference of the cylinder, adjacent to the second spacer;

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wherein one end of the cylinder is contacted with the ~~hook~~
~~hole~~transition opening of the cylinder spacer having boundary with the first
spacer;

a piston moveable in a predetermined distance in the inside of the cylinder,

5 including:

a hot water cavity connected with the first spacer and formed in one
side from the center of the piston;

a cold water cavity connected with the second spacer and formed in
the other side from the center of the piston;

10 a hot water hole perpendicular to the hot water cavity, opened or
closed to the first inlet of the cylinder selectively;

a cold water hole perpendicular to the cold water cavity, opened or
closed to the second inlet of the cylinder selectively;

a first pressure unit in one side of the piston;

15 a second pressure unit in the other side of the piston;

rounds in one ends of the first and the second pressure units making
the piston slide easily in the inside of the cylinder;

shock absorber rings in the ~~hook~~~~hole~~transition opening and the
~~hook-jaw~~transition step to absorb the impact energy generated by the

20 rounds;

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a piston seal ring in the center of the outer
~~circumstance~~circumference, contacted with the cylinder tightly;

wherein one end of the piston is correspondent to the ~~hook~~
~~hole~~transition opening and the other end of the piston is correspondent to
the ~~hook-jaw~~transition step; and

a cap including:

a minor screw jointed with the screw of the cylinder inserting the
piston;

a major screw jointed with the female screw of the main body; and

a cap seal ring;

wherein the cap is sealed tightly by all of the minor screw, the
major screw, and the cap seal ring.

3. (Currently Amended) The automatic water pressure control valve according to
claim 2, wherein each of the backflow cutoff valve in the hot water outlet and in
the cold water outlet of the main body to prevent back flows of hot water or cold
water, further comprises:

a cylindrical unit having a closed top end;

an open/close unit made of rubber material in the top of the cylindrical unit
to open or close the first spacer or the second spacer;

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multiple inlet holes to radial directions of the top side of the cylindrical unit, connected with the inside of the cylindrical unit;

5 a guide jaw in the center of the outer ~~circumstance~~circumference of the cylindrical unit, sliding up and down through the inner ~~circumstance~~circumference of each of the water outlets, wherein the bottom of the cylindrical unit lifts up and down through the inner ~~circumstance~~circumference of each of water conduits connected with the corresponding each of the water outlets; and

10 a spring between the guide jaw of the cylindrical unit and each of top of the water conduits, opening the open/close unit only in the case that the water pressure is more than a predetermined water pressure.

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